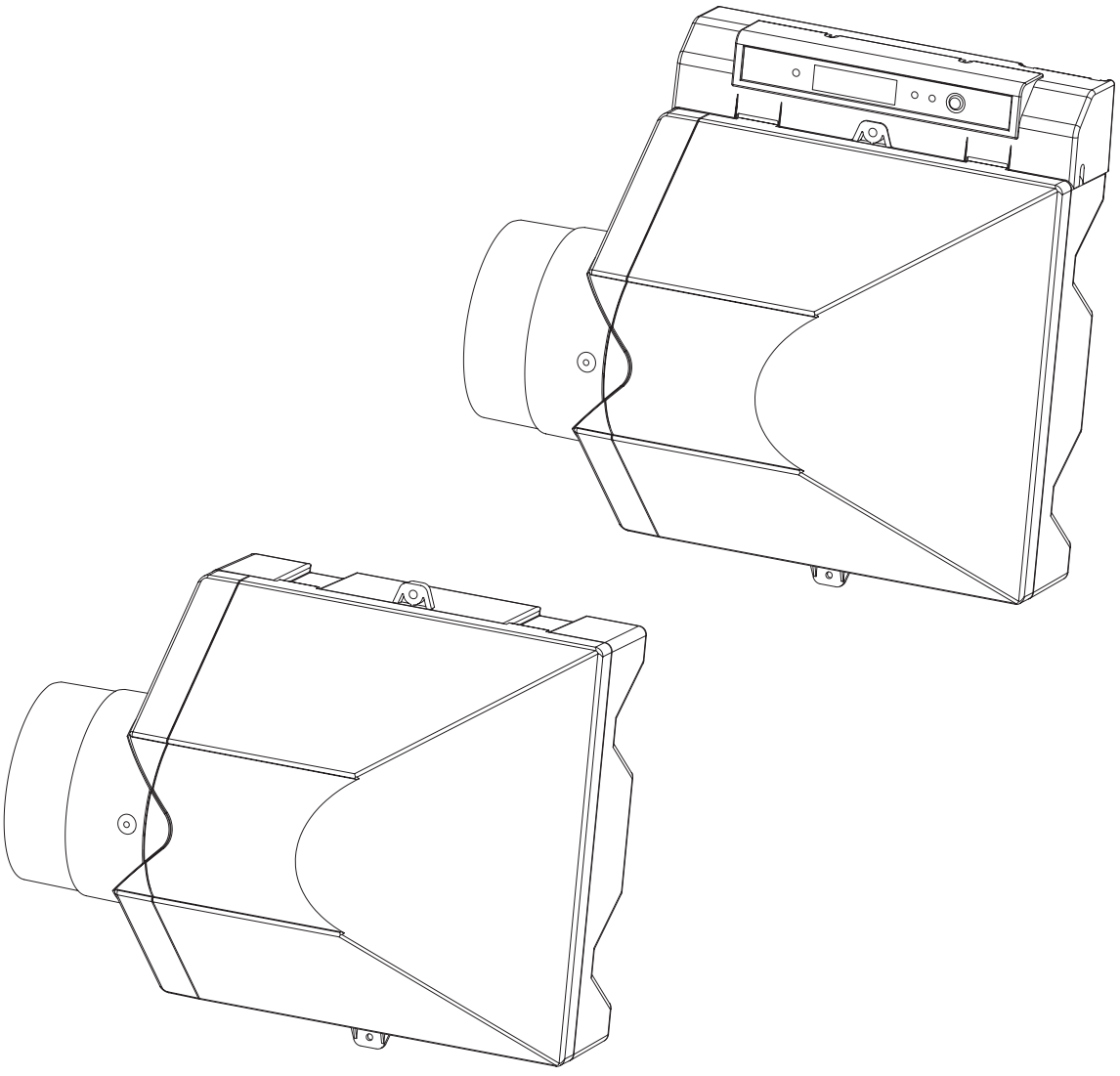
FLOW-THROUGH FURNACE HUMIDIFIER

Model 5000/6000



Warranty
Maintenance
Troubleshooting Guide

WARRANTY

The manufacturer guarantees the for the period of one year from the date of purchase, the product will be free of defects in workmanship and/or material. As well the manufacturer offers a life time warranty on the flow through humidifier body. During the warranty period, we will replace or repair any defective part at no charge if the product is returned prepaid to our factory.

This warranty does not cover any labor or shipping costs, or the cost of replacement components as part of routine maintenance (such as Flow Through Humidifier Evaporator Pads, Inlet water Filters, or Orifice Fittings). Any damage or failure caused by abuse, misuse, abnormal usage, faulty installation, or improper maintenance will not be covered by this warranty.

In order to make a claim on this warranty you must be the original consumer of the product and you must contact the manufacturer 1-800-465-7300 between 8 AM and 3:30 PM EST Monday to Friday at the first sign of a defect. You will be required to present to the manufacturer the original bill of sale showing date of purchase, place of purchase, and model purchased. Failure to meet these requirements will void your warranty.

The manufacturer will not be held responsible for any bodily injuries or damages to personal property or real estate whether caused directly or indirectly by the product. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages and some states or provinces do not allow limitations on how long an implied warranty lasts, so these exclusions or limitations may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state and province to province.

SAVE THIS DOCUMENT AND ATTACH YOUR RECEIPT.

Date of Purchase	Date Of Installation
Place of Purchase	Brand and Model#

See attached table regards specific component warranty periods.

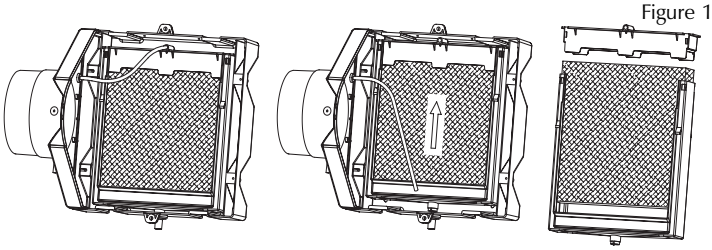
MAINTENANCE

REPLACING/REMOVING THE EVAPORATOR PAD. (REFER TO FIGURES 1 A, B, C)

In order to ensure maximum performance you should replace the evaporator pad at least once a year, Depending on the condition of your water you may want to consider more frequent replacement.

1. Turn off the power to the humidifier, Turn off the water supply to the humidifier, Turn off your furnace.
2. Remove the humidifiers front cover, it is secured in place with a plastic thumb screw.
3. Remove the black flexible water tube from the nozzle at the top of the distribution tray (it is a push fit.), which supplies water to the distribution tray.
4. Remove the evaporator pad assembly, lift the assembly up and then out of the humidifier body.
5. Disassembly the evaporator pad assembly, The distribution tray is secured to the filter frame via 4 integral tabs.
6. Once the distribution tray is off you will be able to remove the evaporator pad.
7. Clean the distribution tray and filter frame using a mild soap and warm water solution if required and replace the evaporator pad.
8. Reattach the distribution tray to the filter frame, ensure all four tabs are locked.
9. Reinstall the evaporator pad assembly into the humidifier body, ensure the nozzle for the water tube (located on the top of the distribution tray) is pointing out. The filter frame secures to the humidifier body via slanted hooks on the filter frame fitting into tabs on the humidifier body.
10. Firmly push the black flexible water tube back into the nozzle.
11. Replace the humidifier front cover, and secure in place with the plastic thumb screw.
12. Turn the power and water back on to the humidifier and turn your furnace back on.
13. Check for and repair any leaks.

Figure 1.



REPLACING/REMOVING THE INLET WATER FILTER (REFER TO FIGURES 2 A, B, C)

The purpose of the inlet water filter is to protect the humidifier's orifice fitting and the solenoid valve, it is not cleaning or disinfecting the water in any way, it is only stopping solids from plugging these components. This filter should be checked if you notice that the amount of water being supplied to the humidifier has reduced. If you live in a area with hard (high mineral content) water you may want to consider replacing this filter yearly.

1. Turn off the power to the humidifier, turn off the water supply to the humidifier, Turn off your furnace.
2. Remove the bypass tube from the side of the humidifier.
3. Using a wrench disconnect the water supply.

4. The inlet filter is located inside the black orifice fitting. Using a pointy object (i.e. nail), remove the inlet.

5. The filter should be fairly clean and free of depree,

6. Replace or clean the inlet filter if required. If punctured or damaged, replace before operating the humidifier. Remember this filter protects the orifice fitting and solenoid valve.

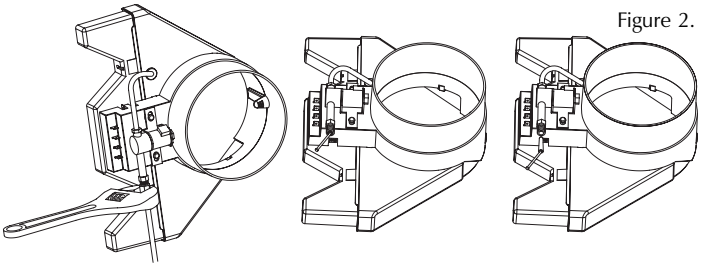
7. Reconnect the water supply.

8. Reconnect the bypass tube.

9. Turn the power and water to the humidifier back on. Check for and repair any leaks.

10. Turn on your furnace.

Figure 2.



CHECKING WATER FLOW TO THE HUMIDIFIER DISTRIBUTION TRAY (REFER TO FIGURES 3 A, B, C)

The amount of water flowing to the distribution tray directly affects the output of the humidifier. The humidifier has a built in restrictor which will ensure efficient use of water while maintaining maximum output. In the average home the amount of water flowing out of the flexible water tube (supplying water to the distribution tray) should be between 300 ml – 600 ml (10 fl oz – 20 fl oz, US) in approx. 3 to 5 minutes. If necessary and you want to check the amount of water flowing to the humidifier's evaporator pad follow the steps below. If you find that the amount of water flowing is not enough you should check that the self pierce needle valve is fully open and water is flowing freely to the humidifier (disconnect the water supply from the humidifier and allow the water to flow into a bucket – it should be a relatively heavy stream), Check that there is no blockage within the unit (ie the inlet water filter or the orifice connector.).

1. Get a 300 ml to 600 ml (10 oz – 20 oz) container (old pop or water bottle) and a watch, clock or stop watch and a water bucket.

2. Remove the front cover of the humidifier, it is held in place via a plastic thumb screw.

3. Get the humidifier to cycle ON, - you can do this by getting your furnace to go into heating mode and blowing hot air.

4. Once the Water starts to flow remove the flexible water supply tube from the distribution tray, it is push fit into the nozzle on the top of the distribution tray.

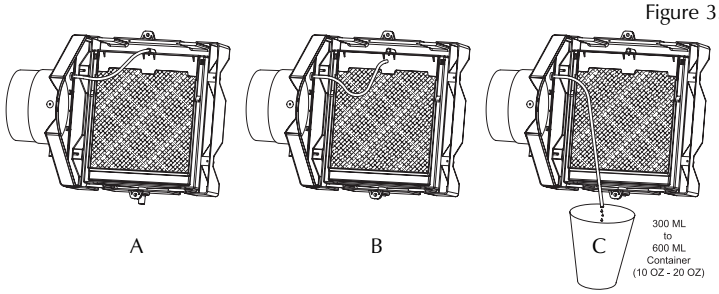
5. Allow the water from the water supply tube to flow into the 300 – 600 ml container and time how long it takes to fill the container. Any overflow or spillage run into a bucket.

6. After the test is complete firmly replace the flexible water supply tube into the nozzle on the top of the distribution tray.

7. Replace the front and secure with thumb screw.

8. Check for and repair any leaks.

Figure 3.



REPLACING A SOLENOID VALVE OR AN ORIFICE CONNECTOR (REFER TO FIGURES 4 A, B, C)

At some point it may become necessary to replace or check the solenoid valve and or the orifice fitting. Follow the steps below to complete this operation.

1. Turn off the power to the humidifier, turn off the water supply to the humidifier, Turn off your furnace.

2. Remove the bypass tube from the side of the humidifier.

3. Remove the front cover from the humidifier (secured in place with a thumb screw).

4. Remove the flexible black water supply tube from the top of the distribution tray.

5. Feed the flexible black water supply tube through the humidifier side.

6. Using a wrench disconnect the water supply to the solenoid valve.

7. Depending on your installation in order to get better access it may be a good idea to remove the side from the humidifier, this is done by removing the 2 screws on the inside of the unit which hold the side in place. However you should be able to complete this replacement without removing the side.

8. Remove the 2 solenoid valve wires from their terminals and using a screw driver remove the 2 screws which hold the solenoid valve in place.

9. Remove the solenoid valve from the humidifier's side – If replacing a solenoid valve, replace the orifice fitting and water inlet filter at the same time.

10. If replacing the orifice fitting only securely fix the solenoid valve in place (place gently in a vise or hold with a wrench) and using a wrench remove the orifice fitting from the valve.

11. Before installing the new orifice fitting ensure the threads are clean on the solenoid valve.

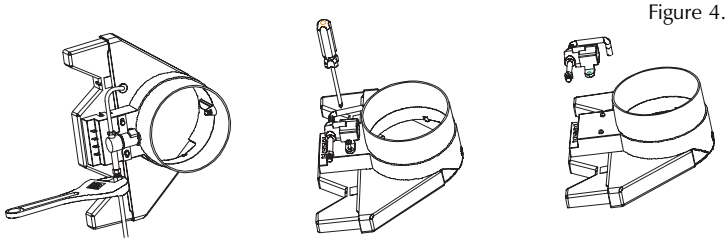
12. When installing the new orifice fitting ensure you use Teflon tape (white plumber's tape) on the threads of the new fitting.

13. When replacing the orifice fitting replace the inlet water filter at the same time.

14. Reinstall the solenoid valve onto the humidifier side, feed the flexible black water supply tube back through the humidifier side, reinstall the humidifier side (if removed) onto the humidifier body and secure in place, reconnect the water supply to the solenoid valve, replace the humidifier's front cover and secure in place, turn back on the water supply, turn back on the furnace, and turn on the humidifier

15. Test your repair for leaks and repair if necessary.

Figure 4.

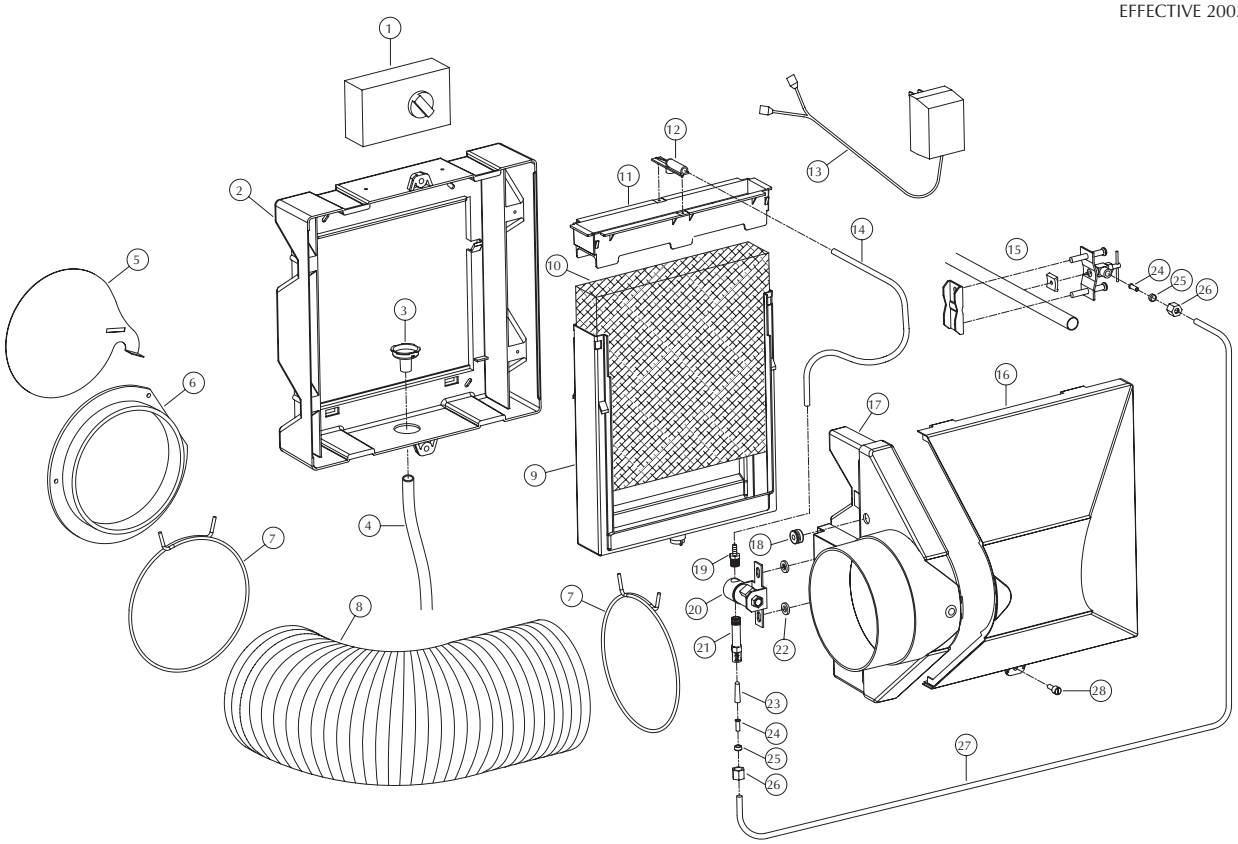


A B C

Component Item Description	Parts List/ Humidifier Model	Component Number	Warranty Period	Recommended Maintenance
Humidifier Body	5000/6000	2	Lifetime	Inspect yearly, clean with damp cloth.
Humidifier Side Panel	5000/6000	17	Lifetime	Inspect yearly, clean with damp cloth.
Front Cover	5000/6000	16	Lifetime	Inspect yearly, clean with damp cloth.
Distribution Tray	5000/6000	11	1 Year	Inspect when replacing evaporator pad, clean in warm water and mild soap. Replace if necessary.
Filter Holder	5000/6000	9	1 Year	Inspect when replacing evaporator pad, clean in warm water and mild soap. Replace if necessary.
Solenoid Valve	5000/6000	20	1 Year	Replace as required When replacing replace the orifice fitting (item 21) and inlet water filter (item 23) as well.
Orifice Fitting	5000/6000	21	N/A	Replace if plugged, dependant on water condition. When replacing change the inlet water filter (item 23) as well.
Inlet Water Filter	5000/6000	23	N/A	Replace as required, dependant on water condition. Good idea to replace with the evaporator pad (item 10)
Evaporator Pad	5000/6000	10	N/A	Inspect regularly, replace at least yearly, dependant on water condition.
Bypass tube	5000/6000	8	1 Year	Inspect regularly; replace if necessary.
Water Supply Tube	5000/6000	27	1 Year	Inspect regularly; replace if necessary.
Water Drainage Tube	5000/6000	4	1 Year	Inspect regularly; replace if necessary.
Needle Valve Assembly	5000/6000	15	1 Year	Inspect regularly; replace if necessary.
24 Volt Transformer	5000/6000	13	1 Year	Inspect regularly; replace if necessary.
Flexible Water Tube	5000/6000	14	1 Year	Inspect regularly; replace if necessary.
Drain Insert	5000/6000	3	1 Year	Inspect when replacing evaporator pad, clean in warm water and mild soap. Replace if necessary.
Mechanical Humidistat	5000	1	1 year mechanism, lifetime on housing.	Inspect regularly, Clean housing with damp cloth – Replace mechanism as required
Digital Humidistat	6000	1	1 year mechanism, lifetime on housing.	Inspect regularly, Clean housing with damp cloth – Replace humidistat electronics as required

Component Item Description	Parts List/ Humidifier Model	Component Number	Warranty Period	Recommended Maintenance
Duct Mount Humidity Sensor	6000	29	1 year	Replace as required.
Humidisense Electronic Humidifier Control	5000/6000	Not Shown	1 year	Replace as required. – PN 011109001
Solenoid Valve Assembly	5000/6000	Not Shown – Service Assembly	Service Assembly – PN 010913104	Service Assembly – Replacement Solenoid Valve (item 20), Orifice Fitting (item 21), Barbed Fitting (item 19), and Water Inlet Fitting (item 23) – Ready for installation.
Side Panel Assembly	5000/6000	Not Shown – Service Assembly	Service Assembly – PN 011139101	Service Assembly – Replacement Humidifier Side Panel (item 17), and Humidisense Electronic Humidifier Control (not shown) – Ready for installation
Evaporator Pad Assembly	5000/6000	Not Shown – Service Assembly	Service Assembly – PN 010910102	Service Assembly – Replacement Evaporator Pad (item 10), Distribution Tray (item 11), Filter Holder (item 9) – Ready for installation

EFFECTIVE 2003/2004

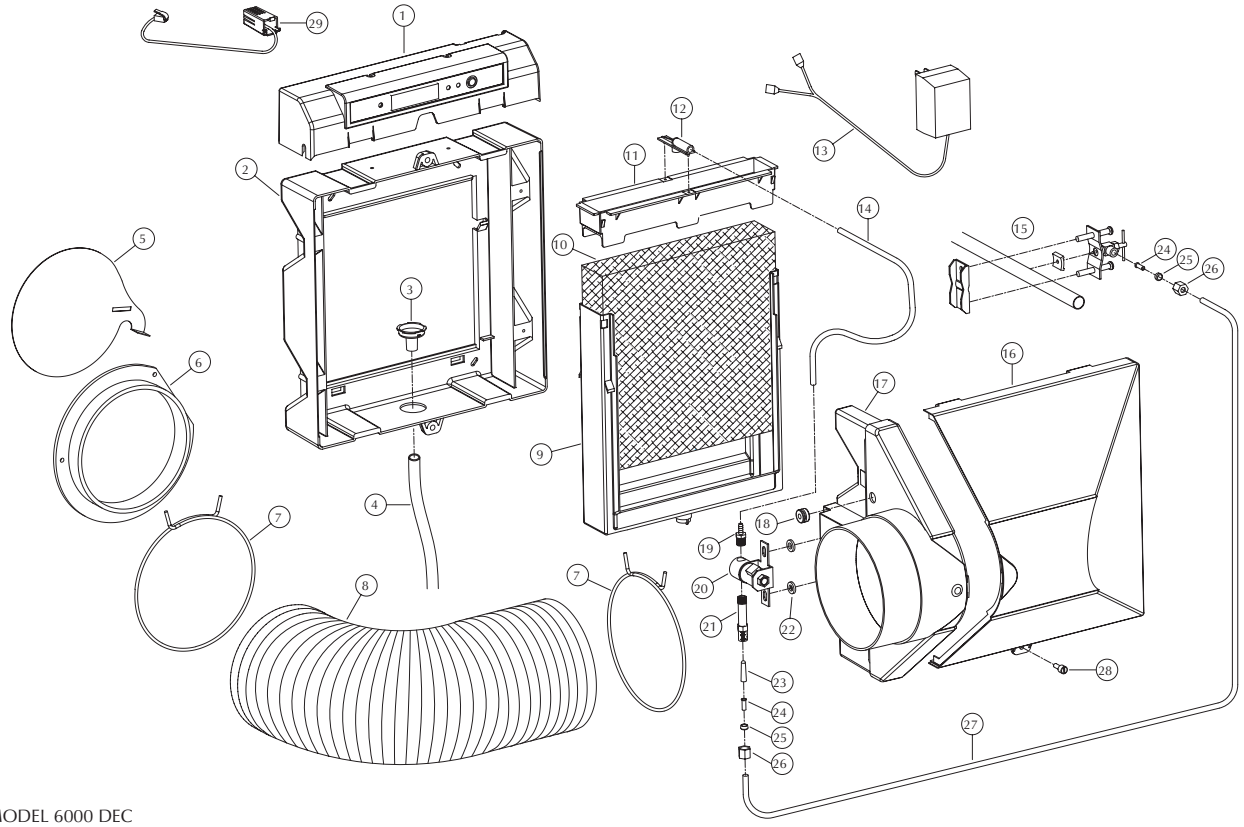


MODEL 5000 EC

ITEM NUMBER	DESCRIPTION	QTY/UNIT	PART NUMBER
*1	humidistat	1/per	01A000015
2	flow through body	1/per	010908002
3	drain insert	1/per	010912000
4	drain hose	15 feet/unit	010930002
5	air damper	1/per	01A170930
6	collar	1/per	01A172107
7	6" spring wire clamp	2/per	010938000
8	bypass tube	3 feet/unit	010917000
9	filter holder	1/per	010910002
10	evaporator pad	1/per	010918002
11	water distribution tray	1/per	010911002
12	nozzle	1/per	011120001
13	120/24VAC transformer	1/per	010916001
14	flex water tube 1/4"x20"	1/per	010933001
15	needle valve assembly	1/per	0PB132055
16	flow through cover	1/per	010907001
17	side panel assembly	1/per	011139101
18	grommet	1/per	910283003
19	barbed fitting	1/per	010935000
20	solenoid	1/per	010913004
21	male orifice connector	1/per	010927001
22	washer	2/per	010283004
23	inlet water filter	1/per	010937000
24	brass insert	2/per	01A930041
25	nylon ferrule	2/per	010926001
26	brass compression nut	2/per	010932000
27	1/4" water tube	10 feet/unit	01A930040
28	10-32 plastic screw	1/per	019001067

* Specify brand

EFFECTIVE 2003/2004



MODEL 6000 DEC

ITEM NUMBER	DESCRIPTION	QTY/UNIT	PART NUMBER
*1	digital humidistat assembly	1/per	011138001
2	flow through body	1/per	010908002
3	drain insert	1/per	010912000
4	drain hose	15 feet/unit	010930002
5	air damper	1/per	01A170930
6	collar	1/per	01A172107
7	6" spring wire clamp	2/per	010938000
8	bypass tube	3 feet/unit	010917000
9	filter holder	1/per	010910002
10	evaporator pad	1/per	010918002
11	water distribution tray	1/per	010911002
12	nozzle	1/per	011120001
13	120/24VAC transformer	1/per	010916001
14	flex water tube 1/4"x20"	1/per	010933001
15	needle valve assembly	1/per	0PB132055
16	flow through cover	1/per	010907001
17	side panel assembly	1/per	011139101
18	grommet	1/per	910283003
19	barbed fitting	1/per	010935000
20	solenoid	1/per	010913004
21	male orifice connector	1/per	010927001
22	washer	2/per	010283004
23	inlet water filter	1/per	010937000
24	brass insert	2/per	01A930041
25	nylon ferrule	2/per	010926001
26	brass compression nut	2/per	010932000
27	1/4" water tube	10 feet/unit	01A930040
28	10-32 plastic screw	1/per	019001067
29	Duct Mounting Humidity Sensor	1/per	010266000

* Specify brand

TROUBLE SHOOTING GUIDE

MODEL 5000 AND 6000 HUMIDIFIERS

***PROBLEM**: NOT ENOUGH HUMIDITY*

POSSIBLE CAUSE: Humidistat set too low.

REMEDY: Turn up the humidistat.

POSSIBLE CAUSE: Humidifier has only been installed for a few days.

REMEDY: If you have just installed the humidifier it can take anywhere from 3 to 4 weeks to build up the humidity level in the home.

POSSIBLE CAUSE: Not enough air flow through the humidifier. *For the maximum performance of 12 us gallons in 24 hrs of operation there must be at least 0.5" static pressure.*

REMEDY:

- Adjust bypass damper to fully open position.
- Ensure the bypass tube is fully stretched out tight.
- Furnace filter is dirty and needs replacement.
- Bypass tube and humidifier not installed parallel, use hard ducting – use hard ducting for any elbows – take the most direct route when ducting.
- The bypass tube or humidifier is installed in front of air-conditioning coils or is blocked in some other way – move to another location and ensure maximum air flow.
- The humidifier and bypass tube are installed on the same duct – you must install the unit on either the supply or return and the bypass tube on the opposite duct or the unit will not work.
- For some reason your furnace is not supplying sufficient air to the unit.

POSSIBLE CAUSE: Not enough water is getting to the evaporator pad. *For the maximum performance of 12 US gallons in 24 hours of operation there must be at least 60 PSI of water pressure.*

REMEDY:

- Check that the unit is turned on and plugged in.
- Check that the humidistat is turned up and is calling for humidity. If at the start of the furnace cycle the humidistat is not calling for humidity then the humidifier will wait until the next furnace cycle, even if during the furnace cycle the humidity level drops below the set point.
- Check that the saddle valve is open.
- Check that the unit is level and that the evaporator pad assembly is getting evenly wet.
- Check that there is water getting to the humidifier, turn off the water disconnect the water supply to the unit and turn the water back on. Allow the water to flow into a bucket, reconnect the water after test.
- Check the amount of water being supplied to the evaporator pad. (Procedure in Maintenance Guide)
- Check that the water inlet filter is not plugged. Replace if required. (Procedure in Maintenance Guide)
- Check that the black orifice fitting is not plugged. (Procedure in Maintenance Guide)
- The homes water pressure is too low. For rated output the water pressure must be at least 60 PSI.

POSSIBLE CAUSE: Unit is not cycling with the furnace in heating mode. *For this unit to work it must sense a 4°C temperature rise over 1 minute of time and the air temperature must be at least 30°C. This ensures that the humidifier is using water efficiently. If your furnace does not supply the require temperatures you will have to purchase and install a pressure switch.*

REMEDY:

- Check that the unit is turned on and plugged in.
- Check that the humidistat is turned up and is calling for humidity. If at the start of the furnace cycle the humidistat is not calling for humidity then the humidifier will wait until the next furnace cycle, even if during the furnace cycle the humidity level drops below the setpoint.
- Check that the bypass damper is open and hot air is flowing through the humidifier.
- Ensure the bypass tube is fully stretched out tight.
- Furnace filter is dirty and needs replacement.
- Bypass tube and humidifier not installed parallel, use hard ducting – use hard ducting for any elbows – take the most direct route when ducting.
- The bypass tube or humidifier is installed in front of air-conditioning coils or is blocked in some other way – move to another location and ensure maximum air flow.
- The humidifier and bypass tube are installed on the same duct – you must install the unit on either the supply or return and the bypass tube on the opposite duct or the unit will not work.
- For some reason your furnace is not supplying sufficient heat to activate the unit. If you use a heat pump or a high efficient furnace you may see this problem, or if your furnace is not working properly. It will be necessary to purchase a pressure switch to activate the unit (available through our parts and service line 1-800-465-7300), or you may have the unit hard wired to your furnace by a HVAC or electrical professional and bypass the unit's control.

POSSIBLE CAUSE: The air going through the unit is not hot enough. For the maximum performance of 12 US gallons in 24 hours of operation the air temperature going through the filter should be 120°*F*. 100°*F*=10 US gal/24 hours, 80°*F*=7 US gal/24 hours, etc.

REMEDY:

- Adjust bypass damper to fully open position.
- Ensure the bypass tube is fully stretched out tight.
- Furnace filter is dirty and needs replacement.
- Bypass tube and humidifier not installed parallel, use hard ducting – use hard ducting for any elbows – take the most direct route when ducting.
- The bypass tube or humidifier is installed in front of air-conditioning coils or is blocked in some other way – move to another location and ensure maximum air flow.
- The humidifier and bypass tube are installed on the same duct – you must install the unit on either the supply or return and the bypass tube on the opposite duct or the unit will not work.
- Your furnace does not supply air hot enough to maximize output. If you use a heat pump or a high efficient furnace you may see this problem. You may want to consider the use of supplemental humidification such as floor or table top humidifiers.

POSSIBLE CAUSE: The outside conditions have been extremely cold -15°C to -20°C for extended periods. *During extended periods of extreme cold your humidifier is working to replenish the moisture which is being lost in the home's structure, furniture, and other household items. As the humidifier is working the cold weather is continually drying out the house. Because the temperature drop outside the water temperature being supplied to the unit is also low, a 5°F drop in water temperature will reduce the output of the unit by as much as 15-25%*

REMEDY: There is no remedy for this situation – except time. Your humidifier has a stated output. All you can do is ensure that your unit is working at its peak performance. (See section in the instructions.)

All homes bring in outside fresh air – whether through infiltration (cracks) or through the use of HRV's. This is imperative to ensure proper indoor air quality. The amount of outside air brought in will directly affect the humidity levels in your home, and the colder that air is the more moisture it will take from the humidifier.

***PROBLEM**: HUMIDIFIER IS NOT CYCLING ON WHEN THE FURNACE TURNS ON*

POSSIBLE CAUSE: The air going through the unit is not hot enough. *For this unit to work it must sense a 4°C temperature rise over 1 minute of time and the air temperature must be at least 30°C. This ensures that the humidifier is using water efficiently. If your furnace does not supply the require temperatures you will have to purchase and install a pressure switch.*

REMEDY:

- Adjust bypass damper to fully open position.
- Ensure the bypass tube is fully stretched out tight.
- Furnace filter is dirty and needs replacement.
- Bypass tube and humidifier not installed parallel, use hard ducting – use hard ducting for any elbows – take the most direct route when ducting.
- The bypass tube or humidifier is installed in front of air-conditioning coils or is blocked in some other way – move to another location and ensure maximum air flow.
- The humidifier and bypass tube are installed on the same duct – you must install the unit on either the supply or return and the bypass tube on the opposite duct or the unit will not work.
- Your furnace does not supply air hot enough to activate the control – you will have to install a flow through pressure switch (through our parts and service line) or bypass the humidifiers control and have the unit hardwired to your furnace by an electrician or hvac professional.

There may be a time lag occurring between your furnace turning on and the humidifier turning on. Anything ranging from 60 to 120 seconds is considered acceptable, as the unit is waiting to sense the minimum air temperature required to evaporate water. As well it is waiting for a minimum temperature rise to occur over a one minute period. This is a safeguard to ensure the efficient use of water.

***PROBLEM**: HUMIDIFIER IS NOT CYCLING OFF WHEN THE FURNACE TURNS OFF*

POSSIBLE CAUSE: Temperature set point on the "humidisense" control is not set properly for your furnace. *The "humidisense" control has 4 different set points to activate the humidifier's off cycle – these are easily adjusted to match your furnace's cycles (see instructions). The off cycle is activated when, depending on your setting: 1) a minimum temperature is met, or 2) a minimum temperature drop occurs over a one minute time period.*

REMEDY: Follow the section in the instructions to customize the humidifier's control to your furnace's cycles. *There may be a time lag occurring between your furnace turning off and the humidifier turning off. Anything ranging from 30 to 90 seconds is considered acceptable, as the unit is sensing air temperature hot enough to continue to evaporate water.*

POSSIBLE CAUSE: The temperature in the furnace is not dropping fast enough to activate the "humidisense" off cycle. *The "humidisense" control will work on all typical residential furnace installations available today. However if for some reason you have customized your furnace installation, or are using various supplemental heating apparatus for your home (fire place – gas or wood, radiant floor, etc.), have made additions or renovations to your home without up grading your heating system, or have not properly maintained your home's heating system, it may by necessary to use our pressure switch or have the unit interlocked with your furnace by an electrical or HVAC professional.*

REMEDY:

- Adjust bypass damper to fully open position.
- Ensure the bypass tube is fully stretched out tight.
- Furnace filter is dirty and needs replacement.
- Bypass tube and humidifier not installed parallel, use hard ducting – use hard ducting for any elbows – take the most direct route when ducting.

- The bypass tube or humidifier is installed in front of air-conditioning coils or is blocked in some other way – move to another location and ensure maximum air flow.
- The fan delay on your furnace is not set properly and the furnace fan is shutting off too early when the air is still hot. You should discuss with a HVAC professional to have your furnace's fan cycle adjusted so you are maximizing the heat delivered to your home. If the furnace is not adjusted you will have to consider the use of a flow through pressure switch (through our parts and service line) or bypass the humidifiers control and have the unit hardwired to your furnace by an electrician or HVAC professional.
- Your furnace is located in an enclosed space like a closet, and as a result the temperature in that space is very hot , this is not a good condition. Proper ventilation is necessary for your furnace to operate properly you should consult a HVAC professional. If this is the case you will have to consider the use of a flow through pressure switch (through our parts and service line) or bypass the humidifiers control and have the unit hardwired to your furnace by an electrician or HVAC professional.
- Your furnace is not operating properly and running too hot – consult a HVAC professional.

***PROBLEM**: THE HUMIDISTAT READING DOES NOT SEEM TO MATCH THE HUMIDITY LEVEL IN THE HOME; IT IS HIGHER OR LOWER*

POSSIBLE CAUSE: Humidistat is not located in the proper location. *Sensing the humidity level in the duct is usually an accurate and easy way to read the humidity level in the home – however depending on the home, and the home's ventilation system, the unit may be sensing a false humidity level*

REMEDY:

• Model 5000 humidifier comes with a humidistat which can be duct mounted or wall mounted. For model 6000 humidifier you may purchase a wired remote humidistat sensor. You should relocate your humidity sensor to a central location perhaps close to the home's thermostat to give you a better indication of the humidity level.

***PROBLEM**: NO WATER GETTING TO THE EVAPORATOR PAD*

POSSIBLE CAUSE: Humidistat is not turned up.

REMEDY: Turn up the humidistat, wait for the furnace to be in heating mode and the green "humidisense" light to turn on. You will hear the solenoid valve click.

POSSIBLE CAUSE: No power to the unit.

REMEDY: Turn on the power, turn up the humidistat, wait for the furnace to be in heating mode and the green "humidisense" light to turn on. You will hear the solenoid valve click.

POSSIBLE CAUSE: The furnace is not in heating mode.

REMEDY: Wait for the furnace to be in heating mode and the green "humidisense" light on the side to turn on. The solenoid will click.

POSSIBLE CAUSE: After the furnace has gone into heating mode the humidistat was turned down or the humidity level rose above the set point.

REMEDY: No water will run if at the beginning of the heating or if during the heating cycle the humidistat is not calling for humidity. The unit will wait for the next heating cycle and if the humidistat is calling for humidity then allow water to flow.

POSSIBLE CAUSE: Water supply is not turned on.

REMEDY: Ensure that the self piercing valve is installed correctly (see section in instructions) and open fully.

POSSIBLE CAUSE: Water is blocked at either the water inlet filter or at the orifice fitting. *It is not common for the inlet filter or orifice fitting to become blocked. To ensure against this, when installing the unit do not use any existing water tubing from old units as there may be some sort of build up in the line. When you replace your humidifiers evaporator pad you should also replace the water inlet filter (see maintenance schedule).*

REMEDY:

- To check that there is water getting to the humidifier, turn off the water, disconnect the water supply to the unit, and turn the water back on. Allow the water to flow into a bucket, and then reconnect the water after test.
- Check that the water inlet filter is not plugged. Replace if required. (Procedure in Maintenance Guide)
- Check that the black orifice fitting is not plugged. (Procedure in Maintenance Guide)

***PROBLEM**: THERE IS TOO MUCH WATER GOING DOWN THE DRAIN*

POSSIBLE CAUSE: The unit is installed improperly and is not performing efficiently.

REMEDY: Check your installation in the appropriate section in the instructions and make any necessary adjustments.

POSSIBLE CAUSE: The home's furnace is not supplying the design conditions for the humidifier. *In order to maximize the humidifier's output and ensure efficient operation the following conditions should be maintained*

- *Air temp to the evaporator pad – 120°F*
- *Water temperature to the evaporator pad – 60°F*
- *Air pressure through the unit 0.5" wg sp.*

These conditions are A.R.I. standards and all humidifier manufacturers use them.

REMEDY: If you suspect that the furnace or that conditions at the humidifier cannot be maintained to ensure maximum output efficiency replace the supplied self piercing water valve with a proper shut off valve and back off the water supplied to the unit until the amount of water being drained is acceptable for you.

POSSIBLE CAUSE: The humidifier is not turning off when the furnace is turning off.

REMEDY: See section above for solution. If the unit is running when the furnace is not in heating mode then very little water will be evaporated and most of the water will be going down the drain.

POSSIBLE CAUSE: The unit is working properly and the furnace is supplying the proper conditions – just not happy with the water usage.

REMEDY: Flow thru humidifiers will use water – this unit has a restrictor inline to keep the water usage to the minimum required to achieve the rated output – based on testing this unit will use totally approx. 37 US gallons of water in 24 hours of total humidifier operation – if this is unacceptable for you, replace the supplied self piercing water valve with a proper shut off valve and back off the water supplied to the unit until the amount of water being drained is acceptable for you.

***PROBLEM**: TOO MUCH HUMIDITY IN THE HOME*

POSSIBLE CAUSE: Humidistat set too high.

REMEDY: Turn humidistat down.

POSSIBLE CAUSE: Humidistat not located in the proper position.

REMEDY: Locate the humidistat in a central location and adjust accordingly.

POSSIBLE CAUSE: Secondary humidity sources.

REMEDY: Humidity levels vary greatly from home to home – the time of year your home was built will affect the levels – the amount of showers taken, cooking, the amount of ventilation a home has, as well the amount of people living in a home will affect the humidity level – turn the humidistat down or turn off the humidifier until required.

***PROBLEM**: SOLENOID VALVE BUZZING OR HUMMING*

POSSIBLE CAUSE: The 6″ spring clamp used to hold the bypass tube is touching the valve.

REMEDY: Adjust the position of the 6″ spring clamp so the valve does not buzz or hum.

POSSIBLE CAUSE: Loose screws holding the solenoid valve.

REMEDY: Tighten the two screws which hold the solenoid valve in place.

POSSIBLE CAUSE: The humidifier body is not secured to the furnace duct properly.

REMEDY: Ensure all 4 screws which hold the humidifier body in place are installed and are tightened.

POSSIBLE CAUSE: Using a copper water supply tube and the water tube is touching some part of the furnace.

REMEDY: If using copper water tube ensure it is not touching some part of the furnace – you may have to use cushioned pipe clamps to stop humming or buzzing. We recommend that you use the supplied plastic water supply tube.

POSSIBLE CAUSE: No water is present at the valve when activated.

REMEDY:

- Ensure the water supply valve is open and supplying water to the unit.
- Check that the water inlet filter is not plugged. Replace if required. (Procedure on page 3)
- Check that the black orifice fitting is not plugged. (Procedure on page 3)

***PROBLEM**: LEAKING WATER*

POSSIBLE CAUSE: Water connection to the unit not properly done.

REMEDY: Check your water connections at the self piercing valve and to the humidifier's solenoid valve – ensure that the ends of the plastic tube were sanded – ensure that you have installed all the proper hardware (see section instructions - water supply connection), ensure that you have not cross threaded the fittings – you will have to replace them if you have.

POSSIBLE CAUSE: Flexible water supply tube to the humidifier's distribution tray not installed.

REMEDY: After the installing the humidifier's evaporator pad assembly into the unit and before putting the front cover on it is important that you firmly install the flexible black tube into fitting at the top of the distribution tray.

POSSIBLE CAUSE: Water supply tube has a leak.

REMEDY: The tube is in contact with a heat source or has been pierced with a staple or nail – replace the tube as required – regularly inspect the water supply tube and the water drain tube for wear or leaks.

POSSIBLE CAUSE: Evaporator pad assembly is not installed correctly.

REMEDY: Ensure that the evaporator pad assembly is installed as per the instructions and that the bottom spout is allowing the water to flow our of the unit via the drain fitting.

MODEL 6000 HUMIDIFIERS ONLY

***PROBLEM**: THE DIGITAL HUMIDISTAT KEEPS RESETTING TO THE DEFAULT SETTINGS.*

POSSIBLE CAUSE: Power source (transformer) is plugged into an outlet which is being shut off or turns off via a switch.

REMEDY: Relocate the transformer to an outlet which cannot be turned off – if you have a renovated basement the outlet may have been wired to a switch with out you knowing.

POSSIBLE CAUSE: Electrical noise is causing the digital humidistat to reset.

REMEDY: The transformer is plugged into the same outlet, or the outlet is in the same circuit as a refrigerator, washer, dryer or some other large appliance – the current draw on the circuit is causing the digital humidistat to reset or is causing electrical noise. Relocate the humidifier's transformer to another outlet.

***PROBLEM**: THE DIGITAL HUMIDISTAT IS CONSTANTLY READING LOW 15%*

POSSIBLE CAUSE: The humidity in the house is that low.

REMEDY:

- Refer to the section about getting peak performance from the humidifier. Try to maximize the units output.
- During times of extreme cold the humidity level in the home will be low. moisture being added by the humidifier is being taken up by the wood work and other home furnatings.
- If you have just installed the humidifier it can take any where from 3 to 4 weeks to build up the humidity level in the home.

POSSIBLE CAUSE: Fresh air is being brought into the duct via an hrv, erv or other fresh air make up.

REMEDY: If this is the case you may want to consider purchasing a wired remote humidistat sensor (through our parts and service line 1-800-465-7300). Locate the sensor in the living space in a central location.

MODEL AK5000 AK5500 & AK7000 SUPPLEMENTAL INSTRUCTION SHEET

WARNING: THIS UNIT IS INTENDED TO BE INSTALLED BY AN LICENCED HVAC PROFESSIONAL – FOR THIS UNIT TO OPERATE PROPERLY THE SUPPLIED 24 VOLT TRANSFORMER MUST BE INTERLOCKED WITH THE FURNACE HEATING CYCLE – THE 24 VOLT TRANSFORMER SHOULD BE ENERGIZED ONLY WHEN THE FURNACE IS IN HEATING CYCLE. THIS UNIT WILL NOT OPERATE PROPERLY AND YOU RISK DAMAGE UNLESS YOU PROPERLY INSTALL THE TRANSFORMER. DO NOT ATTEMPT TO COMPLETE THIS INSTALLATION UNLESS YOU ARE A LICENCED HVAC PROFESSIONAL.

TRANSFORMER - MODEL AK5000, AK5500, AK7000

- Hazardous Voltage Can Cause Personal Injury Or Equipment Damage.
- Disconnect Power Supply Before Installing or Servicing.
- On Multispeed Blower Applications, Do Not Wire The High Voltage Side Of The Transformer To The Same Power Source That Services The Furnace Blower Or The Transformer May Burn Out Prematurely.
- Do Not Attempt to Install the transformer unless you are an HVAC professional.

The transformer supplied with the unit is different then indicated in the supplied Installation/operating instructions. You have been supplied with a Class 2 120Volt/24 VAC hard wire transformer. It is designed to be connected to the furnace through the furnace accessory terminals, the furnace heating relay, or interlocked with the furnace blower. Install the transformer on the outside of a grounded metal junction box using only a 7/8" knockout hole. Secure the transformer in place using the locking nut on the transformer mounting sleeve.

HUMIDISENSE HUMIDIFIER CYCLING CONTROL - MODEL AK5000, AK5500, AK7000

In the supplied installation/operating instructions reference is made to the electronic "Humidisense" humidifier cycling control, and indicating LED's. Because models AK5000, AK5500, & AK7000 are contractor installed units, with the transformer interlocked with the furnace's heating cycles the electronic controls and accompanying LED's are not required or installed on the units. Your furnace humidifier will automatically cycle ON & OFF when your furnace cycles, no adjustments are required.

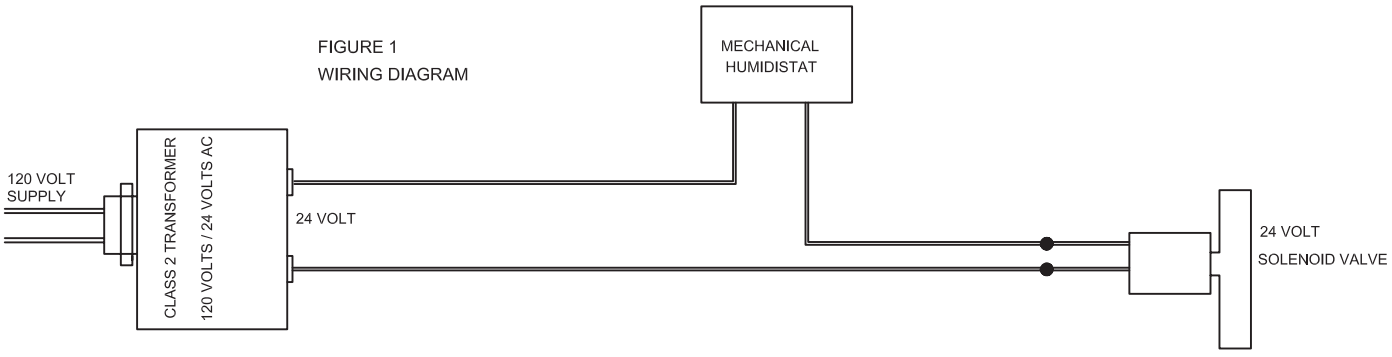
ELECTRONIC HUMIDISTAT CONTROL MANUAL AND AUTOMATIC OPERATION - MODEL AK7000

In the supplied Model 7000 installation/operating instructions & maintenance/warranty booklets reference is made to the electronic humidistat control with manual and automatic operation. This control is not supplied with the contractor model AK7000, in its place your unit has been provided with a standard mechanical humidistat design for either duct mount or wall mount installation. Refer to the provided humidistat installation sheet for installation instructions.

ELECTRICAL WIRING – MODEL AK5000, AK5500, & AK7000

Once the wiring is complete you should have all the components wired in series (a continuous loop) as shown in figure 1 below. To make the connection to the humidifier's solenoid valve use ¼" insulated male terminals or cut the ¼" female terminals present on the solenoid valves wire then strip the wire ends – connect to the low voltage wire using approved electrical wire nuts.

FIGURE 1
WIRING DIAGRAM



FEUILLE D'INSTRUCTION COMPLÉMENTAIRE, MODÈLES AK5000, AK5500 ET AK7000

MISE EN GARDE : CET APPAREIL EST CONÇU POUR ÊTRE INSTALLÉ PAR UN PROFESSIONNEL CVC AUTORISÉ SOUS LICENCE – POUR QUE CET APPAREIL FONCTIONNE CONVENABLEMENT, LE TRANSFORMATEUR DE 24 VOLTS FOURNI DOIT ÊTRE INTERVERROUILLÉ AVEC LE CYCLE DE CHAUFFAGE DE LA FOURNAISE - LE TRANSFORMATEUR DE 24 VOLTS DEVRAIT ÊTRE MIS SOUS TENSION SEULEMENT LORSQUE LA FOURNAISE SE TROUVE DANS LE CYCLE DE CHAUFFAGE. CET APPAREIL NE FONCTIONNERA PAS CONVENABLEMENT OU VOUS RISQUEREZ DES DOMMAGES À MOINS QUE LE TRANSFORMATEUR N'AIT ÉTÉ CONVENABLEMENT INSTALLÉ. N'ESSAYEZ PAS DE COMPLÉTER CETTE INSTALLATION À MOINS QUE VOUS NE SOYEZ UN PROFESSIONNEL CVC AUTORISÉ SOUS LICENCE.

TRANSFORMATEUR – MODÈLES AK5000, AK5500 ET AK7000

- La tension dangereuse peut causer des blessures ou des dommages à l'équipement.
- Débranchez l'approvisionnement en courant avant de faire l'installation ou l'entretien.
- Sur les applications de souffleur à vitesses multiples, ne raccordez pas le côté à haute tension du transformateur à la même source de courant que celle qui dessert le souffleur de la fournaise, sinon le transformateur risque de se détériorer prématurément.
- N'essayez pas d'installer le transformateur à moins que vous ne soyez un professionnel CVC.

Le transformateur fourni avec cet appareil est différent de celui indiqué dans les instructions fournies d'installation/fonctionnement. Vous avez reçu un transformateur à câblage direct classe 2 de 120 volts/24 VCA. Celui-ci est conçu pour être raccordé à la fournaise au moyen des bornes accessoires de fournaise, du relais de chauffage de fournaise, ou pour être interverrouillé au souffleur de fournaise. Installez le transformateur à l'extérieur d'une boîte de jonction en métal avec mise à la terre en utilisant seulement un trou à pastille défonçable de 7/8 po. Fixez le transformateur en place en utilisant l'écrou de blocage sur le manchon de montage du transformateur.

COMMANDE DE CYCLAGE D'HUMIDIFICATEUR HUMIDISENSE - MODÈLES AK5000, AK5500 ET AK7000

Dans les instructions d'installation/fonctionnement fournies, il est fait référence à une commande de cyclage d'humidificateur «Humidisense» électronique et aux DEL d'indication. Étant donné que les modèles AK5000, AK5500 et AK7000 sont des ensembles installés par l'entrepreneur, avec le transformateur interverrouillé aux cycles de chauffage de la fournaise, les commandes électroniques et les DEL les accompagnant ne sont pas nécessaires ni installés sur les ensembles. L'humidificateur de votre fournaise passera automatiquement au cycle de MARCHE ET D'ARRÊT durant les cycles de votre fournaise, aucun ajustement n'est nécessaire.

FONCTIONNEMENT MANUEL ET AUTOMATIQUE DE LA COMMANDE D'HUMIDISTAT ELECTRONIQUE – MODÈLE AK7000

Dans le modèle 7000 fourni, les instructions d'installation/fonctionnement et la référence aux livrets d'entretien/garantie sont faites à la commande d'humidistat électronique avec fonctionnement manuel et automatique. Cette commande n'est pas fournie avec le modèle AK7000 de l'entrepreneur, et à sa place votre système a reçu un concept d'humidistat mécanique standard pour installation à montage sur canalisation ou mural. Référez-vous à la feuille d'installation de l'humidistat pour les instructions d'installation.

CÂBLAGE ÉLECTRIQUE - MODÈLES AK5000, AK5500 ET AK7000

Une fois le câblage terminé, vous devriez avoir tous les éléments câblés en série (une boucle continue) comme illustré à la figure 1 ci-dessous. Pour effectuer la connexion à la soupape de solénoïde de l'humidificateur, utilisez les bornes mâles isolées de ¼ po ou découpez les bornes femelles de ¼ po présentes sur le fil des soupapes à solénoïde, puis dénudez les extrémités du fil – raccordez le fil à basse tension en utilisant les coinceurs à câbles électriques approuvés.